

Form 5500-SF Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation		Short Form Annual Return/Report of Small Employee Benefit Plan This form is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA), and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). ▶ Complete all entries in accordance with the instructions to the Form 5500-SF.		OMB Nos. 1210-0110 1210-0089 2016 This Form is Open to Public Inspection	
Part I Annual Report Identification Information					
For calendar plan year 2016 or fiscal plan year beginning 04/01/2016 and ending 03/31/2017					
A This return/report is for:		☒ a single-employer plan ☐ a multiple-employer plan (not multiemployer) (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) ☐ a one-participant plan ☐ a foreign plan			
B This return/report is		☐ the first return/report ☐ the final return/report ☐ an amended return/report ☐ a short plan year return/report (less than 12 months)			
C Check box if filing under:		☒ Form 5558 ☐ automatic extension ☐ DFVC program ☐ special extension (enter description)			
Part II Basic Plan Information —enter all requested information					
1a Name of plan THE RESTATED CONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES		1b Three-digit plan number (PN) ▶		001	
		1c Effective date of plan		05/01/1964	
2a Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) ALLEMAN COOPERATIVE CO C/O HEARTLAND CO-OP PO BOX 71399 DES MOINES, IA 50325		2b Employer Identification Number (EIN)		42-0242420	
		2c Sponsor's telephone number		515-225-1334	
		2d Business code (see instructions)		115110	
3a Plan administrator's name and address ☐ Same as Plan Sponsor. ASSOCIATED BENEFITS CORPORATION 1415 28TH STREET, SUITE 100 WEST DES MOINES, IA 50266-1450		3b Administrator's EIN		42-1279416	
		3c Administrator's telephone number		515-226-0303	
4 If the name and/or EIN of the plan sponsor has changed since the last return/report filed for this plan, enter the name, EIN, and the plan number from the last return/report.		4b EIN			
a Sponsor's name		4c PN			
5a Total number of participants at the beginning of the plan year		5a		40	
b Total number of participants at the end of the plan year		5b		39	
c Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item)		5c			
d(1) Total number of active participants at the beginning of the plan year		5d(1)		0	
d(2) Total number of active participants at the end of the plan year		5d(2)		0	
e Number of participants that terminated employment during the plan year with accrued benefits that were less than 100% vested		5e		0	
Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.					
Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including, if applicable, a Schedule SB or Schedule MB completed and signed by an enrolled actuary, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.					
SIGN HERE	Filed with authorized/valid electronic signature.	12/29/2017	KELLY HAYERTZ		
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator		
SIGN HERE	Filed with authorized/valid electronic signature.	12/29/2017	TOM HAUSCHEL		
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor		
Preparer's name (including firm name, if applicable) and address (include room or suite number)				Preparer's telephone number	

- 6a** Were all of the plan's assets during the plan year invested in eligible assets? (See instructions.) ☒ Yes ☐ No
- b** Are you claiming a waiver of the annual examination and report of an independent qualified public accountant (IQPA) under 29 CFR 2520.104-46? (See instructions on waiver eligibility and conditions.) ☒ Yes ☐ No
- If you answered "No" to either line 6a or line 6b, the plan cannot use Form 5500-SF and must instead use Form 5500.**
- c** If the plan is a defined benefit plan, is it covered under the PBGC insurance program (see ERISA section 4021)? ☒ Yes ☐ No ☐ Not determined

Part III Financial Information

7 Plan Assets and Liabilities		(a) Beginning of Year	(b) End of Year
a Total plan assets	7a	3157476	3220079
b Total plan liabilities	7b	-28810	724
c Net plan assets (subtract line 7b from line 7a)	7c	3186286	3219355
8 Income, Expenses, and Transfers for this Plan Year		(a) Amount	(b) Total
a Contributions received or receivable from:			
(1) Employers	8a(1)		
(2) Participants	8a(2)		
(3) Others (including rollovers)	8a(3)		
b Other income (loss)	8b	128697	
c Total income (add lines 8a(1), 8a(2), 8a(3), and 8b)	8c		128697
d Benefits paid (including direct rollovers and insurance premiums to provide benefits)	8d	86165	
e Certain deemed and/or corrective distributions (see instructions) ..	8e		
f Administrative service providers (salaries, fees, commissions)	8f	6903	
g Other expenses	8g	2560	
h Total expenses (add lines 8d, 8e, 8f, and 8g)	8h		95628
i Net income (loss) (subtract line 8h from line 8c)	8i		33069
j Transfers to (from) the plan (see instructions)	8j		

Part IV Plan Characteristics

- 9a** If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristic Codes in the instructions:
1A 1I
- b** If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristic Codes in the instructions:

Part V Compliance Questions

10 During the plan year:		Yes	No	N/A	Amount
a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? (See instructions and DOL's Voluntary Fiduciary Correction Program)	10a		X		
b Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 10a.)	10b		X		
c Was the plan covered by a fidelity bond?	10c	X			500000
d Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?	10d		X		
e Were any fees or commissions paid to any brokers, agents, or other persons by an insurance carrier, insurance service, or other organization that provides some or all of the benefits under the plan? (See instructions.)	10e		X		
f Has the plan failed to provide any benefit when due under the plan?	10f		X		
g Did the plan have any participant loans? (If "Yes," enter amount as of year-end.)	10g		X		
h If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)	10h				
i If 10h was answered "Yes," check the box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3	10i				

Part VI Pension Funding Compliance

11 Is this a defined benefit plan subject to minimum funding requirements? (If "Yes," see instructions and complete Schedule SB (Form 5500) and line 11a below)	☒ Yes ☐ No
11a Enter the unpaid minimum required contributions for all years from Schedule SB (Form 5500) line 40	11a 0
12 Is this a defined contribution plan subject to the minimum funding requirements of section 412 of the Code or section 302 of ERISA?	☐ Yes ☒ No
(If "Yes," complete line 12a or lines 12b, 12c, 12d, and 12e below, as applicable.)	
a If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions, and enter the date of the letter ruling granting the waiver. Month Day Year 	
If you completed line 12a, complete lines 3, 9, and 10 of Schedule MB (Form 5500), and skip to line 13.	
b Enter the minimum required contribution for this plan year	12b
c Enter the amount contributed by the employer to the plan for this plan year	12c
d Subtract the amount in line 12c from the amount in line 12b. Enter the result (enter a minus sign to the left of a negative amount)	12d
e Will the minimum funding amount reported on line 12d be met by the funding deadline?	☐ Yes ☐ No ☐ N/A

Part VII Plan Terminations and Transfers of Assets

13a Has a resolution to terminate the plan been adopted in any plan year?	☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year	13a
b Were all the plan assets distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?	☐ Yes ☒ No
c If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)	
13c(1) Name of plan(s):	13c(2) EIN(s)
	13c(3) PN(s)

Part VIII Trust Information

14a Name of trust	14b Trust's EIN
14c Name of trustee or custodian	14d Trustee's or custodian's telephone number

Part IX IRS Compliance Questions

15a Is the plan a 401(k) plan? If "No," skip b.	☐ Yes ☐ No
15b How did the plan satisfy the nondiscrimination requirements for employee deferrals under section 401(k)(3) for the plan year? Check all that apply:	☐ Design-based safe harbor ☐ "Prior year" ADP test ☐ "Current year" ADP test ☐ N/A
16a What testing method was used to satisfy the coverage requirements under section 410(b) for the plan year? Check all that apply:	☐ Ratio percentage test ☐ Average benefit test ☐ N/A
16b Did the plan satisfy the coverage and nondiscrimination requirements of sections 410(b) and 401(a)(4) for the plan year by combining this plan with any other plan under the permissive aggregation rules?	☐ Yes ☐ No
17a If the plan is a master and prototype plan (M&P) or volume submitter plan that received a favorable IRS opinion letter or advisory letter, enter the date of the letter ____/____/____ and the serial number _____.	
17b If the plan is an individually-designed plan that received a favorable determination letter from the IRS, enter the date of the most recent determination letter ____/____/____.	
18 Defined Benefit Plan or Money Purchase Pension Plan Only: Were any distributions made during the plan year to an employee who attained age 62 and had not separated from service?	☐ Yes ☐ No
19 Was any plan participant a 5% owner who had attained at least age 70 ½ during the prior plan year?	☐ Yes ☐ No

SCHEDULE SB (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500 or 5500-SF.	OMB No. 1210-0110 2016 This Form is Open to Public Inspection
--	--	---

For calendar plan year 2016 or fiscal plan year beginning 04/01/2016 and ending 03/31/2017

▶ **Round off amounts to nearest dollar.**

▶ **Caution:** A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan <u>THE RESTATED CONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES</u>	B Three-digit plan number (PN) ▶ <u>001</u>
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF <u>ALLEMAN COOPERATIVE CO C/O HEARTLAND CO-OP</u>	D Employer Identification Number (EIN) <u>42-0242420</u>
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☒ 100 or fewer ☐ 101-500 ☐ More than 500

Part I	Basic Information
1 Enter the valuation date: Month <u>04</u> Day <u>01</u> Year <u>2016</u>	
2 Assets:	
a Market value	2a <u>3186286</u>
b Actuarial value	2b <u>3184831</u>
3 Funding target/participant count breakdown	(1) Number of participants (2) Vested Funding Target (3) Total Funding Target
a For retired participants and beneficiaries receiving payment.....	<u>27</u> <u>738021</u> <u>738021</u>
b For terminated vested participants.....	<u>13</u> <u>271525</u> <u>271525</u>
c For active participants.....	<u>0</u> <u>0</u> <u>0</u>
d Total.....	<u>40</u> <u>1009546</u> <u>1009546</u>
4 If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐	
a Funding target disregarding prescribed at-risk assumptions	4a
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor	4b
5 Effective interest rate	5 <u>5.93 %</u>
6 Target normal cost.....	6 <u>5109</u>

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE		<u>12/19/2017</u>
	Signature of actuary	Date
<u>DOUGLAS S. LANE</u>	Type or print name of actuary	<u>17-04376</u>
		Most recent enrollment number
<u>KIDDER-LANE ACTUARIAL SERVICES, LLC</u>	Firm name	<u>515-453-8589</u>
<u>5700 WESTOWN PARKWAY, SUITE 100</u> <u>WEST DES MOINES, IA 50266</u>	Address of the firm	Telephone number (including area code)

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.

Schedule SB (Form 5500) 2016
v. 160205

Part II		Beginning of Year Carryover and Prefunding Balances	
		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year)	0	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8)	0	0
10	Interest on line 9 using prior year's actual return of <u>5.17</u> %	0	0
11	Prior year's excess contributions to be added to prefunding balance:		
a	Present value of excess contributions (line 38a from prior year)		0
b(1)	Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.13</u> %		0
b(2)	Interest on line 38b from prior year Schedule SB, using prior year's actual return		0
c	Total available at beginning of current plan year to add to prefunding balance		0
d	Portion of (c) to be added to prefunding balance		0
12	Other reductions in balances due to elections or deemed elections	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)	0	0

Part III		Funding Percentages	
14	Funding target attainment percentage	14	315.47%
15	Adjusted funding target attainment percentage	15	315.47%
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	301.61%
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage	17	%

Part IV		Contributions and Liquidity Shortfalls			
18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
Totals ►			18(b)	0	18(c)
					0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:	
a Contributions allocated toward unpaid minimum required contributions from prior years	19a 0
b Contributions made to avoid restrictions adjusted to valuation date	19b 0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c 0
20 Quarterly contributions and liquidity shortfalls:	
a Did the plan have a "funding shortfall" for the prior year?	☐ Yes ☒ No
b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?	☐ Yes ☐ No
c If line 20a is "Yes," see instructions and complete the following table as applicable:	
Liquidity shortfall as of end of quarter of this plan year	
(1) 1st	(2) 2nd
(3) 3rd	(4) 4th

Part V	Assumptions Used to Determine Funding Target and Target Normal Cost					
21	Discount rate:					
a	Segment rates:	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">1st segment: 4.43%</td> <td style="width: 33%;">2nd segment: 5.91%</td> <td style="width: 33%;">3rd segment: 6.65%</td> </tr> </table>	1st segment: 4.43%	2nd segment: 5.91%	3rd segment: 6.65%	☐ N/A, full yield curve used
1st segment: 4.43%	2nd segment: 5.91%	3rd segment: 6.65%				
b	Applicable month (enter code)	21b	0			
22	Weighted average retirement age	22	62			
23	Mortality table(s) (see instructions) ☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute					
Part VI	Miscellaneous Items					
24	Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No					
25	Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No					
26	Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment. ☐ Yes ☒ No					
27	If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment.	27				
Part VII	Reconciliation of Unpaid Minimum Required Contributions For Prior Years					
28	Unpaid minimum required contributions for all prior years	28	0			
29	Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29	0			
30	Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0			
Part VIII	Minimum Required Contribution For Current Year					
31	Target normal cost and excess assets (see instructions):					
a	Target normal cost (line 6)	31a	5109			
b	Excess assets, if applicable, but not greater than line 31a	31b	5109			
32	Amortization installments:	Outstanding Balance	Installment			
a	Net shortfall amortization installment	0	0			
b	Waiver amortization installment	0	0			
33	If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33				
34	Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33)	34	0			
		Carryover balance	Prefunding balance			
35	Balances elected for use to offset funding requirement		0			
36	Additional cash requirement (line 34 minus line 35)	36	0			
37	Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c)	37	0			
38	Present value of excess contributions for current year (see instructions)					
a	Total (excess, if any, of line 37 over line 36)	38a	0			
b	Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0			
39	Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37)	39	0			
40	Unpaid minimum required contributions for all years	40	0			
Part IX	Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)					
41	If an election was made to use PRA 2010 funding relief for this plan:					
a	Schedule elected	☐ 2 plus 7 years ☐ 15 years				
b	Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011				
42	Amount of acceleration adjustment	42				
43	Excess installment acceleration amount to be carried over to future plan years	43				

Plan Name: The Restated Contributory Retirement Plan for Cooperatives
Plan Sponsor EIN: 42-0242420
ERISA 3-digit Plan #: 001
Plan Year Ending: 03/31/2017

The required attachment marked with an "X" in the Attachment column is included within the Schedule SB – Single-Employer Defined Benefit Plan Actuarial Information pdf attachment to Form 5500 or Form 5500-SF, Part VI, line 11 which consists of the entire actuarial information issued by the plan's Actuary.

Form/Schedule	Line #	Description	Attachment
5500 Sch. SB		Actuarial Assumptions and Methods	X
5500 Sch. SB		Summary of Plan Provisions	X
5500 Sch. SB		Statement of Enrolled Actuary	X
5500 Sch. SB	7	Explanation of Discrepancy in Prior Year Funding Standard Carryover Balance or Prefunding Balance	
5500 Sch. SB	19	Discounted Employer Contributions	
5500 Sch. SB	22	Description of Weighted Average Retirement Age	X
5500 Sch. SB	26	Schedule of Active Participant Data	
5500 Sch. SB	32	Schedule of Amortization Bases	

Plan Name: The Restated Contributory Retirement Plan for Cooperatives
Plan Sponsor EIN: 42-0242420
ERISA 3-digit Plan #: 001
Plan Year Ending: 03/31/2017

The required attachment marked with an "X" in the Attachment column is included within the Schedule SB – Single-Employer Defined Benefit Plan Actuarial Information pdf attachment to Form 5500 or Form 5500-SF, Part VI, line 11 which consists of the entire actuarial information issued by the plan's Actuary.

Form/Schedule	Line #	Description	Attachment
5500 Sch. SB		Actuarial Assumptions and Methods	X
5500 Sch. SB		Summary of Plan Provisions	X
5500 Sch. SB		Statement of Enrolled Actuary	X
5500 Sch. SB	7	Explanation of Discrepancy in Prior Year Funding Standard Carryover Balance or Prefunding Balance	
5500 Sch. SB	19	Discounted Employer Contributions	
5500 Sch. SB	22	Description of Weighted Average Retirement Age	X
5500 Sch. SB	26	Schedule of Active Participant Data	
5500 Sch. SB	32	Schedule of Amortization Bases	

Plan Name: The Restated Contributory Retirement Plan for Cooperatives
Plan Sponsor EIN: 42-0242420
ERISA 3-digit Plan #: 001
Plan Year Ending: 03/31/2017

The required attachment marked with an "X" in the Attachment column is included within the Schedule SB – Single-Employer Defined Benefit Plan Actuarial Information pdf attachment to Form 5500 or Form 5500-SF, Part VI, line 11 which consists of the entire actuarial information issued by the plan's Actuary.

Form/Schedule	Line #	Description	Attachment
5500 Sch. SB		Actuarial Assumptions and Methods	X
5500 Sch. SB		Summary of Plan Provisions	X
5500 Sch. SB		Statement of Enrolled Actuary	X
5500 Sch. SB	7	Explanation of Discrepancy in Prior Year Funding Standard Carryover Balance or Prefunding Balance	
5500 Sch. SB	19	Discounted Employer Contributions	
5500 Sch. SB	22	Description of Weighted Average Retirement Age	X
5500 Sch. SB	26	Schedule of Active Participant Data	
5500 Sch. SB	32	Schedule of Amortization Bases	

SCHEDULE SB (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation</small>	Single-Employer Defined Benefit Plan Actuarial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code). File as an attachment to Form 5500 or 5500-SF.	OMB No. 1510-0110 2016 This Form is Open to Public Inspection
---	--	---

For calendar plan year 2016 or fiscal plan year beginning 04/01/2016 and ending 03/31/2017

▶ Round off amounts to nearest dollar.

▶ Caution: A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.

A Name of plan THE RESTATED CONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES	B Three-digit plan number (PN) ▶	001
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF ALLEMAN COOPERATIVE CO c/o HEARTLAND CO-OP	D Employer Identification Number (EIN) 42-0242420	
E Type of plan: ☒ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☒ 100 or fewer ☐ 101-500 ☐ More than 500	

Part I Basic Information			
1 Enter the valuation date: Month <u>4</u> Day <u>1</u> Year <u>2016</u>			
2 Assets:			
a Market value.....	2a	3,186,286	
b Actuarial value.....	2b	3,184,831	
3 Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target	(3) Total Funding Target
a For retired participants and beneficiaries receiving payment.....	27	738,021	738,021
b For terminated vested participants.....	13	271,525	271,525
c For active participants.....	0	0	0
d Total.....	40	1,009,546	1,009,546
4 If the plan is in at-risk status, check the box and complete lines (a) and (b) ☐			
a Funding target disregarding prescribed at-risk assumptions.....	4a		
b Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor.....	4b		
5 Effective interest rate.....	5	5.93 %	
6 Target normal cost.....	6	5,109	

Statement by Enrolled Actuary

To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.

SIGN HERE	 Signature of actuary	<u>12/19/17</u> Date
<u>Douglas S. Lane</u> Type or print name of actuary <u>Kidder-Lane Actuarial Services, LLC</u> Firm name <u>5700 Westown Parkway, Suite 100</u> <u>West Des Moines</u> <u>IA 50266</u> Address of the firm		<u>17-04376</u> Most recent enrollment number <u>(515) 453-8589</u> Telephone number (including area code)

If the actuary has not fully reflected any regulation or ruling promulgated under the statute in completing this schedule, check the box and see instructions ☐

For Paperwork Reduction Act Notice, see the Instructions for Form 5500 or 5500-SF.

Schedule SB (Form 5500) 2016
v. 160205

Part II Beginning of Year Carryover and Prefunding Balances		(a) Carryover balance	(b) Prefunding balance
7	Balance at beginning of prior year after applicable adjustments (line 13 from prior year).....	0	0
8	Portion elected for use to offset prior year's funding requirement (line 35 from prior year)	0	0
9	Amount remaining (line 7 minus line 8).....	0	0
10	Interest on line 9 using prior year's actual return of <u>5.17</u> %.....	0	0
11	Prior year's excess contributions to be added to prefunding balance:		
	a Present value of excess contributions (line 38a from prior year).....		0
	b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of <u>6.13</u> %.....		0
	b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return.....		0
	c Total available at beginning of current plan year to add to prefunding balance.....		0
	d Portion of (c) to be added to prefunding balance.....		0
12	Other reductions in balances due to elections or deemed elections.....	0	0
13	Balance at beginning of current year (line 9 + line 10 + line 11d – line 12).....	0	0

Part III Funding Percentages		14	15	16	17
14	Funding target attainment percentage			315.47 %	
15	Adjusted funding target attainment percentage.....			315.47 %	
16	Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement			301.61 %	
17	If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.				%

Part IV Contributions and Liquidity Shortfalls					
18 Contributions made to the plan for the plan year by employer(s) and employees:					
(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
Totals ▶			18(b)	0	18(c)
				0	0

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:	
a Contributions allocated toward unpaid minimum required contributions from prior years.....	19a 0
b Contributions made to avoid restrictions adjusted to valuation date	19b 0
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date.....	19c 0
20 Quarterly contributions and liquidity shortfalls:	
a Did the plan have a "funding shortfall" for the prior year?.....	☐ Yes ☒ No
b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?	☐ Yes ☐ No
c If line 20a is "Yes," see instructions and complete the following table as applicable:	
Liquidity shortfall as of end of quarter of this plan year	
(1) 1st	(2) 2nd
(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:			
a Segment rates:	1st segment: 4.43 %	2nd segment: 5.91 %	3rd segment: 6.65 %
			☐ N/A, full yield curve used
b Applicable month (enter code).....			21b 0
22 Weighted average retirement age			22 62
23 Mortality table(s) (see instructions)	☐ Prescribed - combined ☒ Prescribed - separate ☐ Substitute		

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment.	☐ Yes ☒ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment.	☐ Yes ☒ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment.	☐ Yes ☒ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28	0
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a).....	29	0
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30	0

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):												
a Target normal cost (line 6).....	31a	5,109										
b Excess assets, if applicable, but not greater than line 31a	31b	5,109										
32 Amortization installments:	<table border="1"> <thead> <tr> <th></th> <th>Outstanding Balance</th> <th>Installment</th> </tr> </thead> <tbody> <tr> <td>a Net shortfall amortization installment.....</td> <td>0</td> <td>0</td> </tr> <tr> <td>b Waiver amortization installment</td> <td>0</td> <td>0</td> </tr> </tbody> </table>				Outstanding Balance	Installment	a Net shortfall amortization installment.....	0	0	b Waiver amortization installment	0	0
	Outstanding Balance	Installment										
a Net shortfall amortization installment.....	0	0										
b Waiver amortization installment	0	0										
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33											
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....	34	0										
		Carryover balance	Prefunding balance									
35 Balances elected for use to offset funding requirement.....			0									
36 Additional cash requirement (line 34 minus line 35).....	36	0										
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c).....	37	0										
38 Present value of excess contributions for current year (see instructions)												
a Total (excess, if any, of line 37 over line 36)	38a	0										
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b	0										
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37).....	39	0										
40 Unpaid minimum required contributions for all years	40	0										

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:			
a Schedule elected	☐ 2 plus 7 years ☐ 15 years		
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011		
42 Amount of acceleration adjustment	42		
43 Excess installment acceleration amount to be carried over to future plan years	43		

Attachment to 2016 Form 5500
Schedule SB, line 22 - Description of Weighted Average Retirement Age

Plan Name THE RESTATED CONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES **EIN:** 42-0242420
Plan Sponsor's Name ALLEMAN COOPERATIVE CO c/o HEARTLAND CO-OP **PN:** 001

The weighted average retirement age is equal to the normal retirement age of 62.

List the rate of retirement at each age and describe the methodology used to compute the weighted average retirement age, including a description of the weight applied at each potential retirement age.

See the Actuarial Assumptions attachment for the retirement age probability assumption. The weighted retirement age uses the probabilities as the weights.

Actuarial Assumptions and Methods

Actuarial Assumptions

The actuarial assumptions used in the valuation of the Contributory and Noncontributory Plans are shown below. The assumptions used are the same assumptions that were used in the April 1, 2015 valuation except as noted below.

Interest

Segment Rates

Segment 1 – 4.43%

Segment 2 – 5.91%

Segment 3 – 6.65%

Prior Year: Segment Rates

Segment 1 – 4.72%

Segment 2 – 6.11%

Segment 3 – 6.81%

The Employee Accrues Interest Rate is 1.74%, the prior year used 2.04% per annum for applicable groups.

Mortality

RP 2000 (Separate Male and Female Tables). 2016 Annuitant and Non-Annuitant static separate tables as set forth in Proposed Regulation 1.430(h)(3)-1.

Prior Year:

RP 2000 (Separate Male and Female Tables). 2015 Annuitant and Non-Annuitant static separate tables as set forth in Proposed Regulation 1.430(h)(3)-1.

Turnover

Based on select rates of turnover for the first four years of service and on the ultimate rates of turnover thereafter shown in the table below. Please note that Groups 4 and 527 use the same select rates of turnover but have different ultimate rates in a separate column. Sample rates are shown below.

Groups 216, 323, 326, and 415, do not have a pre-retirement withdrawal assumption.

Groups 509, 510, 513, 514, and 516 use the ultimate rates of termination for all years.

Rate of Turnover

<u>Age</u>	<u>Completed Years of Service</u>					
	0	1	2	3	4+ Ultimate	4+ 004 & 527
25	25.00%	25.00%	20.00%	15.00%	11.00%	9.00%
30	25.00%	25.00%	20.00%	15.00%	11.00%	9.00%
35	20.00%	20.00%	15.00%	15.00%	8.66%	8.00%
40	20.00%	20.00%	15.00%	15.00%	7.31%	6.00%
45	16.00%	16.00%	12.00%	8.00%	6.00%	4.00%
50	16.00%	16.00%	12.00%	8.00%	4.75%	3.00%
55	12.00%	12.00%	10.00%	8.00%	4.00%	2.00%
60	12.00%	12.00%	10.00%	8.00%	4.00%	2.00%

Salary Increase

Salary increase is based on an age-graded set of assumed salary increases illustrated in the table below:

<u>Age</u>	<u>Rate of Salary Increase</u>
25	7.50%
30	6.25
35	5.50
40	5.00
45	4.25
50	4.00
55	3.75
60	2.75

Incidence of Retirement

Employees eligible for the Rule of 85 benefit are assumed to retire according to the select rate shown below for the initial year after becoming eligible. The ultimate rates apply to Rule of 85 retirements after the initial year since becoming eligible and regular retirements.

Groups 216 and 326 do not have a retirement age probability table; all retirements are assumed to occur at age 62. For Group 415 all retirements are assumed to occur at age 65.

Rate of Retirement

<u>Age</u>	<u>Initial Year</u>	<u>Ultimate</u>
55	6%	3%
56	6%	3%
57	6%	3%
58	6%	3%
59	6%	3%
60	6%	3%
61	-	10%
62	-	30%
63	-	25%
64	-	25%
65	-	40%
66	-	25%
67	-	25%
68	-	25%
69	-	25%
70 & over		100%

Spouse's Benefit 80% of employees are assumed to be married, with females two years younger than males.

Expenses Administration expenses will be paid from investment income in excess of the assumed rate of return.

An expense of 0.08% of the Market Value of Assets was added to the Target Normal Cost, the prior year also used 0.08%.

The Target Normal Cost includes the plan's flat rate PBGC expense of \$64 per participant, last year was \$57 per participant.

Contingency Fund Charge 0.3726% of covered payroll. (0.3029% of covered payroll was used in the prior valuation.)
Groups 4 and 527 used 0.0507% of covered payroll. (0.0454% of covered payroll was used in the prior year.)

Asset Valuation Method

The 2016 Valuation continues to utilize the PPA approved spread. This method was further described in IRS Notice 2009-22.

Summary of Plan Provisions

Effective Date	Restated April 1, 2002.
Participation Date	April 1 and October 1, after meeting eligibility.
Plan Year	April 1 through March 31.
Eligibility	Employer chooses: <ol style="list-style-type: none"> 1. Attainment of age 21, 4 months of employment, and works at least 1000 hours per year. 2. Attainment of age 21.
Employee Contribution	Not applicable for the Noncontributory Plans. Some contributory groups waive the employee contribution requirement. When elected, employees contribute 2 3/4% of their monthly earnings.
Average Monthly Earnings	Average of the highest five consecutive years prior to termination.
Credited Service	The number of 1,000 hour plan years. If fewer than 6 months is worked, then partial credit of completed months divided by 12 is given. If more than 6 months is worked, then a full year's credit is given.
Normal Retirement Date	First of the month coincident with or immediately following the 65 th birthday.
Normal Retirement Benefit	The monthly pension is equal to Average monthly Earnings multiplied by years of Credited Service, multiplied by a percentage specified in the Adoption Agreement.
Form of Monthly Retirement Income	Straight Life for single participants. Married participants receive the actuarial equivalent on a joint and 50% survivorship with 120 guaranteed payments, unless the spouse consents to select another form.
Early Retirement Benefit	A participant may retire at (i) age 55 with 10 years of service, (ii) age 62 with five years of service, or (iii) any time after the sum of his attained age and service is 85 or more provided, that he has at least 20 years of Credited Service.
Vesting	Employer elects 1 or 2 in Adoption Agreement:

Percentage	<ol style="list-style-type: none"> 100% after 5 years of service. Follow the table below: <table> <tr> <th>Service</th><th>Vesting %</th></tr> <tr> <td>< 2 years</td><td>0%</td></tr> <tr> <td>2 years</td><td>20%</td></tr> <tr> <td>3 years</td><td>40%</td></tr> <tr> <td>4 years</td><td>60%</td></tr> <tr> <td>5 years</td><td>80%</td></tr> <tr> <td>> 6 years</td><td>100%</td></tr> </table> 	Service	Vesting %	< 2 years	0%	2 years	20%	3 years	40%	4 years	60%	5 years	80%	> 6 years	100%
Service	Vesting %														
< 2 years	0%														
2 years	20%														
3 years	40%														
4 years	60%														
5 years	80%														
> 6 years	100%														
Death Benefit	<p>The spouse or beneficiary of a participant who dies after becoming eligible for early or normal retirement is entitled to receive a death benefit equal to the greater of the Actuarial Value of: i) the survivor income payable had the participant retired and elected the joint and 100% survivor option on the first day of the month preceding his death, and ii) the participant's accrued benefit payable for 60 months.</p> <p>If an active participant dies prior to meeting eligibility requirements for early or normal retirement, the spouse or beneficiary is entitled to receive a death benefit equal to the greater of the Actuarial Value of: i) the survivor income payable had the participant terminated employment and immediately began receiving benefits under 50% Joint & Survivor option, and ii) the member's accrued benefit payable for 60 months.</p> <p>If survived by a spouse, the death benefit is paid as a life annuity equivalent in value to the greater of the Actuarial Values. The spouse may elect to receive the benefit as a 60 month certain annuity. If not survived by a spouse, the death benefit is paid as a 60 month annuity.</p>														
Disability Benefit	<p>If a participant is determined totally and permanently disabled, he is entitled to an immediate monthly income equal to his accrued benefit reduced 1/300 per month for each month prior to age 62 down to age 55 and actuarially thereafter. A minimum monthly benefit of \$50.00 is payable to a participant with at least 5 years of Credited Service at date of disability.</p>														
Late Retirement Benefit	<p>Benefit at actual retirement is based on Credited Service and Average Monthly Earnings to termination date.</p>														

<div>SCHEDULE SB (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation</div>	<div>Single-Employer Defined Benefit Plan Actuarial Information</div> <div>This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6059 of the Internal Revenue Code (the Code).</div> <div>▶ File as an attachment to Form 5500 or 5500-SF.</div>	<div>OMB No. 1210-0110</div> <div>2016</div> <div>This Form is Open to Public Inspection</div>
--	---	--

For calendar plan year 2016 or fiscal plan year beginning _____ and ending _____	
▶ Round off amounts to nearest dollar.	
▶ Caution: A penalty of \$1,000 will be assessed for late filing of this report unless reasonable cause is established.	
A Name of plan	B Three-digit plan number (PN) ▶
C Plan sponsor's name as shown on line 2a of Form 5500 or 5500-SF	D Employer Identification Number (EIN)
E Type of plan: ☐ Single ☐ Multiple-A ☐ Multiple-B	F Prior year plan size: ☐ 100 or fewer ☐ 101-500 ☐ More than 500

Part I	Basic Information		
1	Enter the valuation date: Month _____ Day _____ Year _____		
2	Assets:		
a	Market value.....	2a	
b	Actuarial value	2b	
3	Funding target/participant count breakdown	(1) Number of participants	(2) Vested Funding Target
a	For retired participants and beneficiaries receiving payment		(3) Total Funding Target
b	For terminated vested participants		
c	For active participants		
d	Total		
4	If the plan is in at-risk status, check the box and complete lines (a) and (b)..... ☐		
a	Funding target disregarding prescribed at-risk assumptions.....	4a	
b	Funding target reflecting at-risk assumptions, but disregarding transition rule for plans that have been in at-risk status for fewer than five consecutive years and disregarding loading factor.....	4b	
5	Effective interest rate.....	5	%
6	Target normal cost	6	

Statement by Enrolled Actuary	
To the best of my knowledge, the information supplied in this schedule and accompanying schedules, statements and attachments, if any, is complete and accurate. Each prescribed assumption was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.	
SIGN HERE	
Signature of actuary	Date
Type or print name of actuary	Most recent enrollment number
Firm name	Telephone number (including area code)
Address of the firm	

Part II Beginning of Year Carryover and Prefunding Balances

	(a) Carryover balance	(b) Prefunding balance
7 Balance at beginning of prior year after applicable adjustments (line 13 from prior year)		
8 Portion elected for use to offset prior year's funding requirement (line 35 from prior year)		
9 Amount remaining (line 7 minus line 8)		
10 Interest on line 9 using prior year's actual return of _____ %		
11 Prior year's excess contributions to be added to prefunding balance:		
a Present value of excess contributions (line 38a from prior year)		
b(1) Interest on the excess, if any, of line 38a over line 38b from prior year Schedule SB, using prior year's effective interest rate of _____ %		
b(2) Interest on line 38b from prior year Schedule SB, using prior year's actual return		
c Total available at beginning of current plan year to add to prefunding balance		
d Portion of (c) to be added to prefunding balance		
12 Other reductions in balances due to elections or deemed elections		
13 Balance at beginning of current year (line 9 + line 10 + line 11d – line 12)		

Part III Funding Percentages

14 Funding target attainment percentage	14	%
15 Adjusted funding target attainment percentage	15	%
16 Prior year's funding percentage for purposes of determining whether carryover/prefunding balances may be used to reduce current year's funding requirement	16	%
17 If the current value of the assets of the plan is less than 70 percent of the funding target, enter such percentage.	17	%

Part IV Contributions and Liquidity Shortfalls**18** Contributions made to the plan for the plan year by employer(s) and employees:

(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees	(a) Date (MM-DD-YYYY)	(b) Amount paid by employer(s)	(c) Amount paid by employees
Totals ▶			18(b)	18(c)	

19 Discounted employer contributions – see instructions for small plan with a valuation date after the beginning of the year:

a Contributions allocated toward unpaid minimum required contributions from prior years	19a	
b Contributions made to avoid restrictions adjusted to valuation date	19b	
c Contributions allocated toward minimum required contribution for current year adjusted to valuation date	19c	

20 Quarterly contributions and liquidity shortfalls:

a Did the plan have a "funding shortfall" for the prior year?	☐ Yes	☐ No
b If line 20a is "Yes," were required quarterly installments for the current year made in a timely manner?	☐ Yes	☐ No
c If line 20a is "Yes," see instructions and complete the following table as applicable:		

Liquidity shortfall as of end of quarter of this plan year

(1) 1st	(2) 2nd	(3) 3rd	(4) 4th

Part V Assumptions Used to Determine Funding Target and Target Normal Cost

21 Discount rate:				
a Segment rates:	1st segment: %	2nd segment: %	3rd segment: %	☐ N/A, full yield curve used
b Applicable month (enter code).....				21b
22 Weighted average retirement age				22
23 Mortality table(s) (see instructions) ☐ Prescribed - combined ☐ Prescribed - separate ☐ Substitute				

Part VI Miscellaneous Items

24 Has a change been made in the non-prescribed actuarial assumptions for the current plan year? If "Yes," see instructions regarding required attachment	☐ Yes ☐ No
25 Has a method change been made for the current plan year? If "Yes," see instructions regarding required attachment	☐ Yes ☐ No
26 Is the plan required to provide a Schedule of Active Participants? If "Yes," see instructions regarding required attachment	☐ Yes ☐ No
27 If the plan is subject to alternative funding rules, enter applicable code and see instructions regarding attachment	27

Part VII Reconciliation of Unpaid Minimum Required Contributions For Prior Years

28 Unpaid minimum required contributions for all prior years	28
29 Discounted employer contributions allocated toward unpaid minimum required contributions from prior years (line 19a)	29
30 Remaining amount of unpaid minimum required contributions (line 28 minus line 29)	30

Part VIII Minimum Required Contribution For Current Year

31 Target normal cost and excess assets (see instructions):			
a Target normal cost (line 6)	31a		
b Excess assets, if applicable, but not greater than line 31a	31b		
32 Amortization installments:	Outstanding Balance	Installment	
a Net shortfall amortization installment.....			
b Waiver amortization installment			
33 If a waiver has been approved for this plan year, enter the date of the ruling letter granting the approval (Month _____ Day _____ Year _____) and the waived amount	33		
34 Total funding requirement before reflecting carryover/prefunding balances (lines 31a - 31b + 32a + 32b - 33).....	34		
	Carryover balance	Prefunding balance	Total balance
35 Balances elected for use to offset funding requirement.....			
36 Additional cash requirement (line 34 minus line 35).....	36		
37 Contributions allocated toward minimum required contribution for current year adjusted to valuation date (line 19c).....	37		
38 Present value of excess contributions for current year (see instructions)			
a Total (excess, if any, of line 37 over line 36)	38a		
b Portion included in line 38a attributable to use of prefunding and funding standard carryover balances	38b		
39 Unpaid minimum required contribution for current year (excess, if any, of line 36 over line 37).....	39		
40 Unpaid minimum required contributions for all years	40		

Part IX Pension Funding Relief Under Pension Relief Act of 2010 (See Instructions)

41 If an election was made to use PRA 2010 funding relief for this plan:			
a Schedule elected	☐ 2 plus 7 years ☐ 15 years		
b Eligible plan year(s) for which the election in line 41a was made	☐ 2008 ☐ 2009 ☐ 2010 ☐ 2011		
42 Amount of acceleration adjustment	42		
43 Excess installment acceleration amount to be carried over to future plan years	43		

Attachment to 2016 Form 5500
Schedule SB, line 22 - Description of Weighted Average Retirement Age

Plan Name THE RESTATED CONTRIBUTORY RETIREMENT PLAN FOR COOPERATIVES **EIN:** 42-0242420
Plan Sponsor's Name ALLEMAN COOPERATIVE CO c/o HEARTLAND CO-OP **PN:** 001

The weighted average retirement age is equal to the normal retirement age of 62 .

List the rate of retirement at each age and describe the methodology used to compute the weighted average retirement age, including a description of the weight applied at each potential retirement age.

See the Actuarial Assumptions attachment for the retirement age probability assumption. The weighted retirement age uses the probabilities as the weights.